

ENVIRONMENTALISM  
and  
THE CALUMET REGION

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## INTRODUCTION

In his review of Paul and Anne Ehrlich's book, Population, Resources, Environment, in the 23 April 1970 issue of The New York Review of Books--a review that was published at the time of Earth Day, 1970--Robert L. Heilbroner said: "Ecology has become the Thing. There are ecological jokes, ecological bookstores, advertisements, seminars, teach-ins, buttons...In short, the ecological issue has assumed the dimensions of a vast popular fad, for which one can predict with reasonable assurances the trajectory of all such fads--a period of intense general involvement, followed by growing boredom and gradual extinction, save for a die-hard remnant of the faithful." In the years since Heilbroner's prediction, it is clear that his prognostication has not proved correct--at least not yet. The commitment to environmentalism has proved sufficiently enduring to produce major pieces of federal legislation and agencies, the reduction of air and water pollution, and a public sensitivity to the problems of environmental pollution. All of these factors have affected the Calumet region and resulted in some improvement of environmental conditions here. But environmentalism has also produced a recognition on the part of the public of the need to retain jobs, sustain an economy, and solve the problems of the energy crisis. The issues involved in ending the environmental crisis are far more complex throughout the United States and in the Calumet Region than most environmentalists were aware of in 1970. As the American public has come to recognize this complexity, environmentalism has gradually ceased to be a popular fad, but has yet to follow Heilbroner's trajectory. Nor is it expected that environmentalism will follow such a path in America.

This essay is dedicated to the hope that a sophisticated and informed concern by the public of the Calumet Region will eventually contribute to a resolution of the multiplicity of interrelated environmental problems in the area. That educative process should extend to regional environmental agencies, businesses, labor, and the public. What is most needed is cooperation and not conflict, mutual understanding and not hostility, empathy and not fear. Solving the problems of environmentalism in the Calumet Region boils down to the need to build a genuine sense of community interest and translate that into positive and mutually supportive action. Such an eventuality would prove Heilbroner's prediction wrong at the local, if not at the national level.

This document is not intended to be a comprehensive history, but has been designed to stimulate thought and reflection.



The existence of such acts as the National Environmental Policy Act, The Clean Air Act, and such regulatory agencies as the Environmental Protection Agency, the Council on Environmental Quality and others are proof of the nation's recognition of genuine risks to public health and the environment. That recognition has mostly come in recent years. In the early nineteenth century few people drew any connection between disease--cholera, for example and sanitation. The cholera epidemic that swept the United States in 1832 was, for the most part, regarded as a punishment of God, visited primarily on the urban poor because of their self-indulgence, filth, vicious habits, and indolence. In the absence of laws and leadership, pigs roamed the streets of such cities as Philadelphia and New York City, the streets were open sewers, and the only answer to epidemic was prayer and fasting.

When cholera returned to the United States in 1849, public prayer and fasting were utilized, but most large cities appointed public health boards with power and authority to clean up neighborhoods, insist on improvements in sanitation and otherwise deal with cholera as a medical and public health problem. By the time that cholera again visited the United States in 1866, and with the example of the effectiveness of the United States Sanitary Commission during the Civil War, health boards, laws, and procedures were in place in many cities and substantially reduced the death toll. Medical, sanitation, and public health officials had by 1866 clearly replaced religious leaders in providing an answer for disease.

Such planning, legal enactments, and organization served as an example for dealing with other environmental health problems. Late 19th and early 20th century industrial development made Americans increasingly aware of industrial health hazards. Passage of the White Phosphorous Match Act early in the 20th century prohibited the manufacture of matches containing white phosphorous in order to prevent the deterioration of the facial bones of workers in the industry. A disregard by manufacturers of the health of workers persuaded the Congress of the United States to act. Such disregard of public health prompted other legislation in the period.

When in the late 19th and early 20th centuries a group of journalists known as muckrakers, along with Upton Sinclair's book, The Jungle, pointed out abuses in the meat packing industry and problems from food adulteration and additives, the administration of President Theodore Roosevelt responded with the Meat Inspection Amendment and the Pure Food and Drug Act of 1906. The Pure Food and Drug Act was the work of Dr. Harvey Washington Wiley, formerly of the Department of Chemistry of Purdue University and Chief of the Bureau of Chemistry of the United States Department of Agriculture from 1883 to 1912. Wiley demonstrated the dangers of pesticides, additives and preservatives by creating the Poison Squad in 1902. This group of young volunteers ingested additives and preservatives to determine their effects on humans. The experiments helped provide support for passage of the Pure Food and Drug Act, which authorized the Bureau of Chemistry to control toxic substances in the nation's food and drug supply. Governmental reorganization in 1923 replaced the Bureau with the Food and Drug Administration.



Paralleling the growing national awareness of dangers from toxic substances was the historic evolution of concern about the wilderness. Starting in colonial times with an aversion to the wilderness resulting from the dangers to be found there, the romantic movement of the middle years of the 19th century brought a genuine reverence for wilderness. The romantics, such as Ralph Waldo Emerson, Walt Whitman, and Henry David Thoreau assumed that somehow God could more easily be found in nature than in society. By the late 19th century, John Muir had transformed the romantic conception into an ethic seeking preservation of the wilderness.

Based on Muir's views on one hand and the opposing views on the other of lumbermen, miners and cattlemen, the alternatives were either to destroy the wilderness by lumbering, overgrazing, or mining, or preserving it by totally excluding all such activities. The conservation movement of President Theodore Roosevelt and his chief forester, Gifford Pinchot, took a middle ground between these alternatives.

In contrast with preservation, Pinchot, W. J. McGee, Roosevelt and other conservationists sought conservation or scientific and efficient management of the national forests so that lumbering, grazing, and mining could remain indefinitely profitable for private individuals and corporations using the forests. It was the responsibility of government to manage, regulate, and scientifically develop the forests to be used as a perpetual natural resource. Many private companies also came to recognize that the scientific techniques of forest management could bring profit and avoid depletion of the forests. The comprehensive regulations of the Roosevelt Administration on the forests and waterways were similar to such regulation in the fields of pure foods and drugs and the inspection of meats. By the early 20th century an increasing number of Americans recognized the need for the regulation of business in a variety of areas relating to the environment. However, animosity and rivalry between conservationists and preservationists permitted opponents of both to divide the supporters of wilderness in the period from 1909 to 1920 and defeat environmental legislation. Unfortunately regulation as well was often ineffective.

The ineffectiveness of regulation may be seen in the activities of the Food and Drug Administration in the field of pesticides in the 1920's, 30's, 40's. From the 1870's onward the most important ingredient in pesticides in the United States was arsenic. This resulted in real public health hazards as many Americans prior to World War II became ill or died as a consequence of eating arsenic coated foods. The FDA did little to resolve this difficulty and finally arsenic was replaced by DDT in the 1940's, not because it was hazardous, but because it proved more efficient. In the same way that the lack of FDA action prohibiting the use of arsenic as an insecticide resulted in health hazards, so too did a lack of FDA regulation of preservatives and additives in foods and cosmetics in the 1920's and 1930's. After World War II, the awareness of environmental pollution emerged out of three major concerns.

The earliest concern chronologically arose from the dangers inherent in atmospheric nuclear testing. Spearheaded by many nuclear scientists, the public became increasingly troubled by the dangers to health from widespread radiation



resulting from open air testing of nuclear weaponry. This fear was combined with that of environmental pollution when Rachael Carson published her book, Silent Spring in 1962. DDT had greatly aided American military efforts in the South Pacific during World War II and after the war it was regarded as a blessing to farmers. Rachael Carson attacked the use of DDT and other pesticides which she contended were threatening the delicate chain of life. In her view, the pesticides were spreading a "deadly film" over the environment and all forms of life - including man's - were endangered.

A third source of the modern environmental movement, which helped to generate its apocalyptic strain, was the phenomenon known as the population crisis. Since World War II this problem had been discussed in the works of Barbara Ward, Harrison Brown, and A. Huxley (Brave New World Revisited) but reached the passionate exposition of panic in Paul Ehrlich's The Population Bomb (1968). Shocked by his experiences in India, Ehrlich reemphasized the Malthusian prospect of exponential population growth that would eventually outstrip the capacity of the earth to sustain its population. For Ehrlich, the problems of pollution and environmental damage arose from a single source--population growth, which if left unchecked, would eventuate in world-wide catastrophe. Therefore, the only way to solve this problem was through a limitation of that growth. Out of this desire to stabilize population emerged the term "zero population growth" and a number of agencies designed to seek this objective.

Having articulated the concept of limiting growth, this idea spread to many other areas of environmental concern in the 1960's and 1970's. Thus, works such as Moment in the Sun by R. and L. Rienow, The Limits to Growth, by L. Eiseley and others assume the perspective of the need for a limitation on economic and industrial growth. An example is sufficient to illustrate this interpretation. The Rienows' book, Moment in the Sun was written on the assumption that the United States had since World War II enjoyed a golden age. From the highpoint of that golden age--the 1960's--the path of the future led downward. The materialistic consumption--oriented society of the 1960's was destroying the environment and precluding such standards in the future.

In short Americans had had their "moment in the sun" and could expect a bleak future or economic catastrophe or collapse. The only alternative that Americans had was voluntarily curtailing their living standards and reducing their consumption of consumer goods. This would prolong their "moment in the sun." Moreover, the Rienows argued that America should renounce materialism, greed, and growth for a non-material value system. This became a popular theme of environmentalists in the 1960's and 1970's.

Yet another source of public interest following World War II was the wilderness. The highpoint of wilderness interest was the effort and ultimate success of the effort to prevent the building of Echo Park Dam in Dinosaur National Monument. After years of work to prevent the destruction of Echo Park, in April of 1956 the wilderness groups were finally successful. This victory persuaded the wilderness movement to undertake the creation of a national system



of legally supported wilderness preserves. Such a National Wilderness Preservation System was created with passage of the Wilderness Act of 1964. Although elated, the various conservation and preservation groups were greatly troubled about the danger to the Grand Canyon from a major irrigation system known as the Central Arizona Project. After a major struggle, President Lyndon Johnson in September, 1968, signed the bill authorizing the Central Arizona Project redrawn to protect the Grand Canyon. On October 3, 1968, President Johnson signed the National Wild and Scenic Rivers Act designed to preserve and protect eight selected rivers. The system was expanded in 1976 by the addition of eight more rivers and studies were undertaken of other rivers for possible inclusion in the system. These bills reflected the growing effectiveness of the national environmental movement in the 1960's.

The emphasis on environmental pollution, the population "crisis" and wilderness preservation received support from photographs of the earth taken aboard spaceships participating in the nation's space effort and from photographs and television coverage of the Santa Barbara Oil spill in 1969. These convinced Americans of the fragility of life systems on the earth. That public concern was motivated by a growing fervor among environmentalists to act quickly and decisively to prevent the destruction of the environment.

Environmentalism had also become popular among the "youth culture" of the late 1960's and early 1970's. Anti-establishmentarian in approach, young people on many college campuses and elsewhere sought to reject the political, academic, and economic systems which they contended were based on greed and materialism. Another movement supporting the efforts of environmentalists was consumerism. For example, the Ralph Nader consumer groups were responsible for lobbying in behalf of environmentalism and the publication of such works as J. S. Turner's The Chemical Feast, R. Fellmeth's Politics of Land, J. Esposito's Vanishing Air, J. Fallows' The Water Lords, M. Benstock's Water Wasteland, and Damming the West by R. Berkman and W. K. Viscusi.

Based on this growing commitment, Earth Day on 22 April, 1970 was a genuine national celebration that signified a high-point of national environmental support. By this time "ecology" and "environmentalism" had become part of the vocabulary of most Americans. The early 1970's translated the popularity of environmentalism into important legal enactments. The first of these was the National Environmental Policy Act of 1970.

The National Environmental Policy Act established federal environmental policy and contained enforcement provisions, the most important of which was the requirement that an Environmental Impact Statement be prepared in all "major federal actions significantly affecting the quality of the human environment." The Council on Environmental Quality set the standards for environmental impact statements. The act established the responsibility of the federal government to:

1. fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
2. assure for all America safe, healthful, productive and esthetically and culturally pleasing surroundings;



3. attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;
4. preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice;
5. achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and
6. enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

These noble objectives are to be adhered to "consistent with other essential considerations of national policy." Under this qualifier, protection of the environment has often given way to other national priorities.

The National Environmental Policy Act established the Environmental Protection Agency whose effectiveness has fluctuated. The act directed the Environmental Protection Agency to attain air quality standards by 1975. These objectives have been weakened, ignored or unenforced in the years since promulgation of the act. For example, the Environmental Protection Agency has been reluctant to enforce effective automobile emission standards in the auto industry. The energy shortages of the 1970's have justified increased use of coal and have thereby reduced air quality which the Environmental Protection Agency has allowed. Nonetheless, the Environmental Protection Agency has been important in enhancing environmental protection where it has chosen to act. Moreover, environmental impact statements and the requirement that they be publically considered have permitted environmental groups to register their views on a range of issues from plant and road locations to housing developments. Altogether the National Environmental Policy Act has been enormously important since its passage.

A second major environmental protection act of the 1970's was the Federal Water Pollution Control Act Amendments (1972). For the first time this act mandated that "no one has the right to pollute." The major goal of this act was "to restore and maintain the chemical, physical, and biological integrity of the nation's waters." This act required that:

1. ...the discharge of pollutants into the navigable waters be eliminated by 1985.
2. ...whenever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983.



3. ...the discharge of toxic pollutants in toxic amounts be prohibited.
4. ...Federal financial assistance be provided to construct publicly owned waste treatment works;
5. ...areawide waste treatment management planning processes be developed and implemented to assure adequate control of sources of pollutants in each state; and
6. ...that a major research and demonstration effort be made to develop technology necessary to eliminate the discharge of pollutants into the navigable waters, waters of the continuous zone, and the oceans.

The Environmental Protection Agency was required to implement the law. Regulation under the act was accompanied by grants-in-aid for municipal sewage plant construction.

Unfortunately the Environmental Protection Agency has not always adhered to the deadlines of this act, and has yet to exert the authority granted it in this act and the previous one cited. A General Accounting Office report of February 1976 cites a high rate of non-compliance with provisions of the water pollution law. The Clean Air Act authorized the Environmental Protection Agency to carry out research on air pollution, set and publicize health standards and bring air pollution below levels classified as unhealthy. However, the courts were required to force the Environmental Protection Agency to act to curtail airborne lead. In 1976 Congress enacted the Toxic Substances Control Act to grant the Environmental Protection Agency authority to regulate exposure to toxic substances and require testing of chemicals to ascertain the adverse effects on health and the environment. Other federal agencies have increased their concern over public health as for example, the Department of Health, Education and Welfare has come to recognize the environmental sources of such diseases as cancer.

Another important act of the early 1970's was the Coastal Zone Management Act of 1972. This was passed to encourage preservation of the coastal zones. Funds were available through the act for the development of comprehensive controls relating to land and water use and management plans that require state implementation. Numerous recreational, industrial, transportation, and agricultural facilities have been covered by provisions of this act as they have fallen within coastal zones.

Under these acts considerable progress was made in the 1970's toward cleaning up the environment. Automobile emissions, industrial air and water pollution and other problems were gradually addressed by the Environmental Protection Agency and other federal agencies until these efforts suffered a setback as a consequence of the Arab oil embargo of 1973 and the continuous increases of the price of petroleum and petroleum products by the Organization of Petroleum



Exporting Countries since the embargo. The embargo generated shock and panic about the nation's energy supplies. This shock began in October, 1973. The Yom Kippur War in the Middle East eventuated in an Arab oil embargo cutting off oil supplies to the United States, Japan and Western Europe. The vulnerability of these countries to oil blackmail persuaded the government of the United States of the importance of energy conservation. Presidents Nixon, Ford and Carter have since sought comprehensive energy conservation programs.

An act of this period requires citation. The Energy Reorganization Act of 1974 abolished the Atomic Energy Commission. It was replaced by the Energy Research and Development Agency. This agency was designed to explore and evaluate all technologies and to regulate the nuclear industry. The act and the agency that it created was a first move toward a comprehensive energy program in order to free the United States from dependence on foreign oil. Such fear resulted in the authorization and construction of the Alaskan oil pipeline over the protests of various environmental groups.

Moreover, the effort to obtain energy independence has resulted in weakening controls on air pollution by allowing increased burning of coal and postponing automobile emission standards. In spite of these reversals of environmental protection, energy independence has not been attained and energy dependence has not been curtailed. In fact, the United States has expanded its importation of foreign oil to about fifty percent of consumption, prices have continued to rise, and the United States still has no comprehensive energy program. What will be needed is a comprehensive energy program that will be articulated with a comprehensive environmental program. The lack of such planning is the result of great difficulty in arriving at decisions that deal equally fairly with the environment, the dangers to human health, the need to conserve energy, and retention of a healthy economy. The difficulties of reconciling all of these objectives may be seen in the recent history of environmentalism in the Calumet region.



A SHORT HISTORY LESSON and a HARD LOOK at TODAY

Lance Trusty

I. HOW DID WE GET INTO THIS MESS IN THE FIRST PLACE?

The answer is buried in our history, and a review of our geographical, human, and economic origins is highly instructive.

THE CALUMET REGION

Geologists perceive three physiographic regions in this part of Indiana. The Valparaiso Moraine, running east to west, was the ancient shoreline of "Lake Chicago", the parent of today's Lake Michigan. South of the Valparaiso Moraine lie the outwash plains that form the Kankakee River Basin, or, as the pioneers termed it, the Kankakee Swamps. In the late nineteenth century, the Kankakee River was deepened and fed by a system of drainage ditches. Few cared to live in this miasmatic region of uncountable mosquitoes, snakes, and birds before then.

Between the Moraine and Lake Michigan lies an extensive Lake plain. Formed during the 20,000 year retreat of Lake Chicago toward Lake Michigan, it was a matrix of marsh, ridges, rich soils formed from lake bottom sediment, and fine stands of hard wood forest. Along the Lake Michigan shore was a wonderstrand of white, sandy beaches and a remarkable duneland. The Indiana Dunes, according to botanist Henry Chandler Cowles, were unparalleled in America for their beauty and their rich mixture of 1300 species of wildlife and greenery. Early travellers frequently noted the area's beauty.

Clearly the Region's natural heritage was mixed, but rich, beautiful, and certainly amenable to human habitation.

The Native American

The Indian, who dwelt here rarely, had little effect on the Calumet. Potawatomi, Sauk, and other tribes hunted, fished, occasionally burned a section of prairie to drive game and restore buffalo range, and passed on. He may have farmed a bit here and there, but he founded no towns, cut few trees, and preserved his environment. This was understandable, for the Potawatomi constituted at most a few thousand seasonal "campers" who generally moved south for the winters.



### The Coming of the European

The Potawatomi, deserted by their French allies after 1763, sought terms from the English, but after the Treaty of Paris of 1783, became "Americans". A small Revolutionary War "battle" had occurred here in 1780 at a site now in the Indiana Dunes State Park, which disturbed the peace momentarily. The next century brought troubles with the expansionistic United States. After the struggles of the War of 1812 era, the Indian was largely removed from the Northwest through a series of so-called "treaties." By 1832 the Indians of Indiana were either broken or dead.

### The Log Cabin Era 1832 - 1869

Change accelerated in the Calumet after 1832. Settlers slowly drifted into the area that Powell Moore called "Indiana's Last Frontier". Cabins appeared here and there, surrounded by gaunt, girdled trees and hardscrabble farms. The Detroit-Chicago Road passed through, giving rise to log and clapboard inns, one of which was described as "inferior to the bed of a ...pig." Harriet Martineau was appalled by the Region's hospitality, "the worst" she claimed, "in the United States..."

By the 1850's the Region was well delineated. Counties had been formed, courthouses built, and dirt and plank roads laid over its fields, bogs, and woods. It was predominantly a land of farmers, though still thinly settled. Yet the rape of the region was underway. The first railroads traded local prosperity for wood and whole forests were levelled, to be transformed into ties, planks, houses, and towns elsewhere. There was no thought of reforestation here. Entire dunes were carted to hopper cars and rolled away for rail beds, glass manufacturing and ground fill. The 1893 "World's Fair" in Chicago was built on Miller sand; by then trainloads of sand were rolling from the Calumet daily. Even a remarkable 184 foot high sand mountain lasted but twenty years.

### The Railroad Age

The modern character of the Calumet emerged in the Civil War era, built by railroads on their way to and from Chicago. Business boomed beside the tracks and prosperity enriched local farmers. Manufactured goods, produce, and livestock joined the lumber trade and flowed through busy depots.



In 1869 the northwest corner's future was molded through the opening of George Hammond's meat packing house, which became the Region's largest employer and its first ecological crisis. Powell Moore described it graphically.

"Modern packing house methods were unknown at that time and great piles of bones accumulated at the plant. Rough sheds were built along the railroad tracks, filled with skulls and horns, and throwing off a stench which was nauseating to persons not accustomed to it. When the wind was from the wrong direction, those in its path found the odors almost unbearable."

In 1901 the Region's first ecological reform occurred; Hammond's packing house burned to the ground. Though 1800 workers lost their jobs, the company was shortly merged with Armour's growing empire, then closed forever.

#### The Industrial Age

Standard Oil brought modern heavy industry to the Region in 1889 when it opened its Whiting refinery. Destined to become America's largest, it also advanced the idea of using the Calumet Region as an industrial dump. Standard had a large investment in its highly sulphurous Ohio oil fields. One drop of this Lima crude or "skunk oil" would fill a room with a rotten egg odor. Chicago was a good marketing area but the city declined the prospect of permanent stench and collected high taxes regularly. Standard, therefore, built its refinery in Whiting where the natives welcomed jobs, sold land cheaply, and made no objection to becoming an ecological disaster area. Sand ridges were soon pushed into swamps, tank farms replaced solitude, and gasoline, a useless and dangerous by-product, was poured wholesale onto surrounding soil and waters. Fumes fouled local skies while kerosene and grease made their way to the lamps and axles of the world. Northwest Indiana became the prosperous host to a nauseating, stream fouling eyesore. And so began the Regionite's frequent observation, still heard, that the filth in the sky was prosperity, not pollution.

Over the years Standard was joined by more refineries, attracted to an already degraded area with fewer regulations and taxes than Chicago, and blessed with limitless water and wasteland. By 1920 America had found its national mistress, the automobile, and brought millions, and in the booming twenties the sun was not often seen clearly in the Whiting—Hammond—East Chicago area.



East Chicago's history became the history of the industrial revolution. Graver Tank Company opened its doors to serve Standard in 1888. Then a railroad car wheel manufacturer, a horse-shoe foundry, and a chemical works joined the list. In 1902 Inland Steel began a mill that grew steadily into a vast complex. Appropriate legislation soon provided Inland and other companies with the right to dump slag into the Lake and create land by the dozen acres. Government was rather hospitable then.

1905 was the pivotal year for the duneland east of Inland Steel. The new United States Steel Corporation purchased land, built mills, a city, and named it all in honor of the Chairman of the Board, Elbert Gary. Gary became a totally industrial city, invented by a corporation for corporate purposes, and populated by employees to tend its mills; the business of Gary was business!

The U. S. Steel complex completed the basic industrial evolution of the Calumet. Many more industries would locate here, but their lifeblood was oil or steel. By 1915 the Region was generally regarded as an out-of-the-way spot where a manufacturer could do his thing without interference, an industrial zone on the Great Lakes highway where men came to work. It never occurred to anyone that this was anything other than beneficial. The Calumet's economic prosperity was measured by plumes of smoke, oily effluents, and awesome stench. It was the "Workshop of the World", indeed. Only in the hard thirties did the skies ever clear over the mills, and they never cleared over the refineries. America was prepared to drive to the poorhouse in automobiles.

#### The Peoples of the Region

The Calumet's ethnic geography was also molded by industrial need, and by 1900 the older native, German, and "Hoosier" population was buried in a recruited migration of thousands of Europeans of every ethnic persuasion.

In the twenties a New World migration replaced the European sources of labor that World War I and ethnocentric immigration laws had closed forever. Mexicans arrived in the dismal role of strike-breaker during 1919, and stayed on, despite "native" opposition. By the end of the twenties Inland was the nation's largest employer of Mexican-Americans. Blacks, fleeing the oppression and poverty of the deep South, formed a steady stream of new workers for the continuing growth of mills and refineries. By 1970, as the great migration ended, the Region was ethnically complete. But the Calumet still faces a housecleaning; its human value system is comparable to its water and air.



The prevailing business ethic of the Region was simple and uncomplicated until the 1950's: what was good for business was good for the Calumet. Dirty air and polluted waters were unquestioningly accepted as part and parcel of the Regions' industrial raison d'être. Conservation was viewed as either irrelevant or threatening. In the seventeenth century an English official brushed off a Colonial request for church funds with the reply "Souls? Damn your souls, make tobacco!" This could be paraphrased in the twentieth century with "Damn your lungs; make steel!"

II. WHAT ARE THE ECOLOGICAL PROBLEMS OF THE CALUMET REGION TODAY?  
WHICH ARE THE MOST IMPORTANT?

To deal with the second question first: ecologists are human, despite corporate rumors to the contrary. Each has his or her interest, concern, or hobby horse. Like the fabled blind men and the elephant, each regards his section of the beast as its primary characteristic. Furthermore, environmental agencies drink at the same economic troughs, compete for the same corporal's guard of concerned citizens, and advance their particular interest as the one requiring first attention. Nor did the doomsday books by shrill writers that appeared in the late sixties clarify the debate significantly. Today the Region's problem areas are readily identifiable but there is disagreement over their relative importance. Later we will discuss the value of a unified approach to these problems. Now let's simply catalogue them.

Air Quality - The garbage spewed into the Region's air by its industrial hosts is monumental in quantity, and but for prevailing winds from the south and west and the scrubbing effect of Lake Michigan on the fallout, would long ago have choked us to death. Easily the biggest source of this dirt is steel making and vast steel complexes dot the Region, including such giants as U. S. Steel, Inland, Youngstown, Midwest, Bethlehem, and are abetted by numerous, though smaller, steel dependent manufacturers.

Steel making is not the only air pollution in the Calumet. Oil refining makes its contribution in a less visible but more nauseous fashion, and our automobiles also contribute freely to dirty air. Since the sixties a ban on leaf burning has halted the one attractive source of local dirty air, and home heating conversions from coal to oil to gas and electricity have helped moderately. Presently we are debating conversion to either wood stoves or nuclear electricity!



In 1966 the local sources of air pollution were:

1. Fuel combustion 41% (458,000 tons per year)
2. Industry 35% (392,000 t/y)
3. Transportation 22% (241,000 t/y)
4. Refuse disposal .02%

This mix was peculiar to the Region. Transportation, dumps, and other sources of pollution were below the national average, but reflecting our nature clearly, industry and fuel combustion provided an unusually large amount. By 1973 Lake and Porter Counties had 36 air quality monitoring stations faithfully confirming what our eyes and noses readily detected.

Water Quality - Probably the second most important local ecological problem is maintaining clean water. Water brought industry here; water to cool steel, water to refine oil, water to dilute and carry away a thousand noxious or even poisonous chemicals, and water to float in a billion tons of iron ore from the Mesabi Range.

The dance continues in 1977. Twenty-seven industries befoul Lake Michigan and the Grand Calumet River through 120 licensed discharge sites. Raw sewage— each of us contributing our daily mite— still reaches Lake Michigan. A vast bacterial population from suburban and rural septic tanks still fouls local streams. Excessive nutrients from agricultural and suburban runoff create bloom, murky water and ultimately, eutrophication of the Lake. Dissolved solids and chemicals from industry flow into the waterways from the greatest industrial concentration on the Great Lakes, the Chicago-Hammond-Gary area.

Frightening side effects from PCP infested fish still haunt us. Asbestos and pesticides join known and unknown poisons in Lake Michigan's waters. Those living inland worry over aquifer depletion caused by thousands of well pumps, and those on the coast ponder the fact that by 1980 a fifth of all U. S. waters will annually pass through generating plants and the resulting thermal pollution may present new and ugly consequences. A 500 megawatt nuclear generating plant can use a half million gallons of water in one minute.

The nature of our Great Lake Michigan deserves our attention for a moment. Lake Erie, shallow and relatively free flowing, was pronounced "dead" of poison and eutrophication during the scare tactic years. Yet, if all its inflowing pipes were plugged with



cement by some "superfox" ecologist, Lake Erie would soon cleanse itself. Lake Michigan is a considerably larger and deeper body of water that man has only degraded, not ruined. So far its very size has saved it. But its waters move slowly; it is, except at its northern end, closed. If we finally poison Lake Michigan, its natural clean-up will be measured in centuries, not years.

Our Calumet Region offers a very potent smorgasboard to Lake Michigan. During the last decade, steel makers have successfully removed acid and solid effluents via catch basins, aeration and filtration. The rest of us are slower to reform. The various creeks, ditches and rivers of the Calumet are shallow, slow moving and naturally murky. When Europeans arrived locally, most of our streams were weed choked marshes with nearly undetectable water flows except in flood times. Dredged, they carry their cargoes of wastes, sewage, spills, and runoff daily to Lake Michigan or the Mississippi, depending on which side of Wicker Park you are standing.

#### Solid Waste Management

The problem of where to put the millions of tons of unwanted waste is still unsolved. Locally, the competition over dump sites and dump rights preoccupies us far more than the appalling waste of natural resources represented by a typical city dump. The acreage needed to carry the Calumet's solid waste disposal programs beyond 2000 is substantial, and the cost of management is growing. The question — still quite unresolved — of recycling will be dealt with below.

Human waste is manageable. The solution has been directed by various state and federal community waste treatment standards, and sewage plants are in operation, under construction, or being planned. Cooperative waste management districts are crossing city and town lines. Fortunately, resolution to this problem is attainable through the mere expenditure of money, since existing technology is at least adequate.

#### Noise Pollution

Those living near airports, factories, truck-laden expressways, and construction sites clearly recognize this relatively amorphous problem. The solution is quite diffuse. Federal standards for air hammers and air liners, truck tires and exhaust systems, appliances and automobiles, are emerging in the seventies. Improved designs for mighty jet planes and lowly lawnmowers are reducing ambient noise levels. But should we allow the SST to land at Chicago?



If we kill it, that branch of technical evolution is ended. It is noisy, but so was the first big jet liner, the Boeing 707. Later models are more subdued. Do we adopt an absolutist position at the outset, or accept noise as a necessary step toward silence? What are infants good for, anyhow?

#### Radiation

How much radiation is enough? An emotional question indeed. Where do we compromise? Do we become a second rate client to Arab power and continue our fossil-fueled plants or make a final commitment to the atom (and pray to the gods of science for a quick solution to the fusion puzzle)? Or, do we, as the current aphorism has it, freeze in the dark?

Visible solutions are neither objective nor final. How much of the local opposition to the NIPSCO Bailly Plant is a silent fear of atomic explosion, rather than the acknowledged worry over lake shore esthetics or thermal pollution? Perhaps our real reasons are not yet separate from our good reasons.

Atomic power generation is hardly the whole story. We are in an atomic era and radioactivity serves many fields, including hospitals, medical research, metallurgists, chemists, manufacturers, watchmakers, and others. The question is not whether or not man will use the atom, but how? Questions of safety and waste disposal are central.

#### Human Esthetics

Environmentalism is a total outlook that transcends pollutants and wastes. It is concerned with man's relation to his world, and properly includes a broad spectrum of concerns. Land use, population growth, preservation of heritage, and education are all elements of the quality of life. Locally the garish sprawl of new towns like Merrillville and the decay of older cities are immediate and unresolved local problems. Billboards assault our eyes and commercial and "creative" garbage flows in Niagaras over our televisions and radios. In many ways our nineteenth century economic heritage still pollutes daily life.



### III. WHAT HAS THE ECOLOGY MOVEMENT ACCOMPLISHED?

The movement is a new one, constructed on the precedents of Theodore Roosevelt's conservationism, the vast but unrecognized cleanup and restoration programs of Franklin Roosevelt's New Deal, and the feeble attempts of the post war era to control dirt and smells. Clearly its first stage, that of "crisis psychology" is fading. Earth days, "Foxes", children's crusades, doomsday books, and noisy confrontations are increasingly passe. It has closely replicated the pattern of American reform movements; a "now or never" beginning, replete with accusations, identification of evil-doers, and considerable gaseous rhetoric. Somehow, still breathing, we now proceed, as we once did with dangerous drugs, filthy meats, trash, and railroads, slowly through the stages of remedial legislation and gradual enforcement. Rome wasn't built in a day. America will not be a park in 1984, nor will we all be dying in a "crisis of survival."

Progress is evident in many areas, and occasionally solutions are visible. Auto pollution has been reduced, sewage plants are working, biodegradable products help lakes and air/water pollutants are increasingly stabilized and occasionally declining. Certainly steel and oil makers are paying their dues to pollution control devices, however imperfect. But overall, the regulatory system in 1977 is rather like John Randolph's famous "mackerel in the moonlight;" it shines, but it stinks. Real reform may yet fall between state and federal regulations, weighted down in a blizzard of redundant, "research reports." One hopes that in 1977 we are poised between the noisy first stage and a second one of genuine and broad level reform.

### IV. WHO IS DEALING WITH THE PROBLEM TODAY?

There is no shortage of agencies at all levels of government, nor is there a shortage of planned programs. Let's begin at the top.

#### Environmental Protection Agency (EPA)

The Federal government's interest in pollution control before EPA was weak and fragmented. A nineteenth century outlook on air and water resources was maintained unquestioningly until after World War II. The 1948 Donora, Pennsylvania,



disaster and the London smog attacks of 1952 opened our national eyes, and prompted some change. The U. S. Public Health Service began studying pollution problems in 1955 and by the early sixties motion was detectable. Congress began a legislative drive. The Clean Air Act of 1963 funded monitoring and study. Water Pollution Acts (1956, 1970), the Solid Waste Disposal Act of 1965, the Resource Recovery Act of 1970, and the Noise Abatement and Control Act of 1970 were typical measures. Continued reinterpretations and administrative decisions contributed to an enlarged but poorly coordinated federal effort.

To meet this problem the EPA was created by Congress in December, 1970, as a regulatory agency, responsible for all of the Federal government's existing and future environmental programs. It has not suffered from a lack of money, and its large Washington bureaucracy is supported by ten regional offices and a strong field organization. EPA has the specific responsibility to establish and enforce standards as its primary duty, but it spends much effort in research, monitoring and issuing studies, reports, and recommendations. It dutifully informs the public through torrents of "literature" and coordinates and cooperates with state and local agencies. But — and this is the central question — has EPA succeeded in enforcing the law? Has it compelled corporate America to modify its ethics? Has it forced all businesses to act in a manner that preserves the competitive climate? Can we, in 1977, force U. S. Steel to clean Gary's skies when competitors are under no such duress elsewhere? This is a critical and overlooked point, and will be discussed below. At the state level, regulation is even more difficult, overlapping, and unclear. We are in Hammond, Indiana. Who supervises our environment? The EPA, of course, and the U. S. Water Resources Council, the Great Lakes Basin Commission, the Indiana Department of National Resources, the Coastal Zone Management Board, the U. S. Army Corps of Engineers, the U. S. Fish and Wildlife Service, the Northwest Indiana Air Resource Management Program, the City of Hammond. And there are others.

Problems are obvious: The State of Indiana is a conservative and centralized one (it closed the Gary Branch Office of the Indiana Civil Rights Commission ten years ago) whose chief interest in the Calumet Region is keeping the road to Indianapolis open for shipments of tax money. Indiana is at best secondarily concerned about the Calumet's problems. Local pollution control



boards suffer from unclear legal powers, small budgets, staff turnover and political interference. An excellent definition of frustration: a Hammond air quality inspector complaining about smoke from an East Chicago plant that is owned by ten thousand stockholders, making steel for a national market and managed by Pennsylvania executives who are worried about Japanese competition and are ordering efficiency studies from a dozen plants in order to close the least profitable unit.

V. CAN WE CLEAN UP THE CALUMET REGION INDEPENDENTLY OF FEDERAL OR STATE LEADERSHIP?

No, there are no local solutions to major ecological problems. The region is a microcosm of the nation. We share all the problems of Buffalo ("beau fleuve"), Cleveland, (where the Cuyahoga River has burned merrily on occasion), and Chicago. When East Chicago tilts against Inland, or Gary battles U. S. Steel, the press enjoys the process. We all choose sides (selecting our heroes and villains), and watch the fun. A local air pollution board — or even a state one — has as much chance to change Inland as an ununionized worker did in the old days of steelmaking. Local boards can enforce compliance only with clearly stated and evenly enforced national standards. What else will work?

VI. WHAT CAN INDIVIDUALS DO?

"Earth Day", 1970, was to be the dramatic opener to an age of enlightened citizen participation in environmentalism. Youth was the theme as hundreds waded the Little Calumet and loaded the refuse of the ages into waiting city trucks. At Gavit High School, students expressed their solidarity with environmentalism by riding their bicycles to school. At noon they pedalled en masse to McDonald's for lunch. Within an hour the area between Gavit and the hamburger host was a snow field of wrappers, cups and napkins. Clearly more education was needed. More constructive behavior was available to wiser heads. We avoided leaf and trash burning, bought smaller cars, used less water, "dialed down", recycled cans and a lot of other small things that are soon offset by population and prosperity growth patterns.

The ecological movement has revealed a great faith in democracy. Every group or organization exhorts us, every one, to pitch in, stand up and be counted, read, learn, talk, vote, etc. Generally ecologists behave like political conservatives of the



Wilsonian progressive ilk. They endorse voluntarism, regional action, and local solutions. Certainly ecologists are not the woolly radicals of the executives suite's imagination; but are they ready to accept modern, national, solutions?

An informed local citizenry, voting intelligently, is useful. Activist citizens' groups can help control local problems and advance education and public relations. But, so far, results have come largely from Washington, while the states and cities babble and dawdle.

If we accept a national standard for industrial pollution control, will democracy suffer? Probably in reverse proportion to our lungs and hearts. Public input, and certainly individual participation, will be minimized, as environmental regulation passes into the hands of a distant and possibly unresponsive bureaucracy. Should we trade local democracy for civil serpents afar?

Consider this: our pollution control efforts are presently being pushed aside at the federal level by energy considerations. Nor is it impossible that the result of nationalizing industrial regulation could be a do-nothing federal government. The last hundred years offers a refrain of similar results in transportation, urban problems, worker protection, and finance. The present writer is directed, as Harry Truman used to say, by the "lessons of history" to this conclusion: the states are, as regulatory agencies, a failure. Their general history has been a history of refusal to pass necessary legislation, a subsequent refusal to regulate even when the laws are on the books, and, finally, of loud complaints when Washington, in desperation, steps in to do what is manifestly necessary and overdue.

VII. WHO, ULTIMATELY, SHOULD REGULATE ANTI-ENVIRONMENTAL ELEMENTS IN OUR SOCIETY?

The final answers, which ecologists have not yet resolved, are complex. The history of the past decade indicates clearly that in certain areas, the state or local level works best, particularly if it operates under umbrella federal legislation. Individual polluters, town or county governments, and even small businesses are susceptible to this approach, as a massive investment in improved dumps, sewage treatment plants, local waterway cleanups, and the like, indicates.



### Another History Lesson

The post Civil War Years, 1865-1900, witnessed several attempts by various groups to come to terms with the industrial revolution. The first, dominated by farmers, tried to achieve its goals through state regulation, which resulted in a collection of unfair and unenforceable "Granger Laws." By the 1880's a perception had emerged that the central problem was "uneven" state regulation, and led to a durable movement aimed at "Uniformity". All problems short of foreign policy could be met if every state could be induced to enact "Uniform" legislation that would affect all businesses identically. The American Bar Association formed a "Conference of Commissioners" to study Uniformity which received endorsement from federal, state and business interests. But Uniformity failed miserably. Senator Beveridge of Indiana knew why: "Because (the states) cannot act uniformly, and do not - never have on any subject..."

By 1910 Progressivism had seized the regulatory initiative and secured the passage of numerous national laws, but it also continued to support Uniformity in the name of decentralism. That attitude was little changed before the great depression of the 1930s. Franklin Roosevelt's New Deal was the voice of national reform. It held few reservations about the wisdom of federal laws and regulations and equal treatment of law-breakers. Since the 1930's the burden of remedial legislation in America has been on Washington, despite the activities of a few states (Massachusetts, California, New York, and not Indiana).

The environmental regulation movement has replicated this hundred year national pattern. During the sixties, after demonstrated state and local failures, it turned to Washington and Congress responded with national solutions that contain the germs of reform. But in the seventies will power and action are running downhill on a greased skid as powers return to the states amid a welter of studies, reports, popular participation, and uncountable boards, committees, commissions, councils, agencies and groups. Four years ago, ecology crossed swords with energy and the outcome is yet unknown.

Hard questions to ponder: Can the states possibly regulate a national business system? There is demonstrably a structural contradiction involved here, an incongruity between our economic system, which is national, and our political system, which is federal. How, then, do we compel a national industrial cleanup? By one central agency (EPA)? No other solution seems to meet the requirement that every business in America in each



field must meet uniform and uniformly enforced rules. Any other pattern is clearly damaging to the existing competitive situation. And, since such regulation is in the public interest, it should be done in a manner that benefits the nation, not with an anti-business, anti-technology attitude. In the gospel according to Pogo, the observation was made that "we have met the enemy, and he is us." Business is also us; regulation is harmful if it fails to help us. Would U. S. Steel object to a high clean air-water standard in Gary if it was nationwide? Would management's constant threats to move to other locations be effective if standards were universal? Certainly such a system would end company whipsawing of one state with another: "If you regulate our Gary Plant, we'll move to Louisiana, or New Jersey." Certainly Youngstown, Ohio, has been given a lesson of late.

To reiterate and condense: Can any environmental regulation system except a national one succeed? Can any regulation that is not uniform and universal hope to work? Can we — the people of the Region — really regulate Inland, U. S. Steel, Youngstown, and a dozen other industries through any local, regional, or state environmental agency?

#### VIII. WHAT IS THE ROLE OF BUSINESS IN THE ENVIRONMENTAL CLEANUP?

To paraphrase Calvin Coolidge, the business of business is business. Business cannot be expected to voluntarily do anything that will injure its competitive position, whether one refers to wages, prices, or ecology. Business retains a deep-seated distrust of outside regulation, and has never — as recent oil and steel advertisements indicate — given up on the idea that government should stop "playing politics" and let the marketplace dictate solutions to most problems. Business knows that easy compliance is not only expensive, it soon leads to further demands. So if big industrialists have been acting like little children, ordered to wash their faces at bedtime, it's understandable.

Business must resolve certain attitudinal problems before it can work constructively with the environmental movement. It must abandon the idea that environmentalism is "anti-capitalistic" and "unrealistic". It is easy to fasten the charge of extremism on an "opponent" group by emphasizing fringe ideas held by few (the idea of a sparkling "Little Cal" River with a diving board every hundred yards perched over a "swimmin' hole," the dunes restored, complete with Potawatomi hunters, etc.).



Ecology is hardly anticapitalistic. Since 1965 a host of new corporations have emerged, selling ecological (and energy shortage) remedies, and are as concerned with profits and dividends as U. S. Steel. Environmentalism will reaffirm and restore capitalism, not destroy it. Unfortunately, business also perceives ecologists as anti-technologists, and that is, in a few cases, correct. But most environmentalists seek more technology not less. Of this, more below.

Conversely, ecology must yield on certain major points to business needs. Business must be extricated from the existing network of agreements, decrees, bargains, variances, understandings and the like that have appeared like fungi across the industrial landscape. As long as each corporation is free to seek the best deal it can with regulators, it is still fighting rivals — the government is just one more. Business must be given clear law and simplified compliance procedures, if it will ever leave its second home, the courtroom, where cadres of lawyers practice corporate law in a masterfully slow and majestic ballet. Justice delayed is justice denied.

Concluding proposition: There is no inherent conflict between industry and environmentalism, provided treatment is equal. Solution: apply the law in a fashion that encourages business to spend its money on cleanups, secure in the knowledge that every competitor is spending similar amounts. All can then equally pass on the cost to the nation through price structures.

#### IX. WILL TECHNOLOGY GET US OUT OF THE MESS IT GOT US INTO?

This question readily leads to more and harder ones. Since the technology of environmentalism is evolving so rapidly, should we apply poor solutions now or wait for good ones? Business has frequently argued for the latter approach, government has not. The almost macabre array of automotive pollution devices employed since 1968 is a clear indicator of the federal mind. Will compliance with ecological demands create a low profit - low growth economy, especially in light of energy costs?

The Calumet is home to several industrial processes that respond imperfectly to cleanup. Water can be settled, filtered, polished, and returned, improved. But ending airborne pollution is no easy matter. What do we do with the coking plants?



Should we compel all steel makers to convert to BOP furnaces now? U. S. Steel and others have threaded their way through a maze of demands and agreements over the years. In 1965 U. S. Steel agreed to eliminate its 53 Gary open hearth furnaces by 1974. In 1974 ten still operated - but 43 were making steel with reduced pollution. By 1975 push, shove, and threat were the order of the day. Government threats of fines and closures were met with counterthreats of unemployment and voluntary closures from U. S. Steel. Russell Train complained that he wished to clean up, not close down, but U. S. Steel's muscles were flexed. The company was moving at its chosen pace, though a barrage of sprayers, dust collectors, precipitators, and the like, had reduced Gary's airborne dirt to only 75% beyond the legal maximum. The Steel City's air is still blessed with 60,000 tons of pollutants per annum.

The Bailly Nuclear Generating Plant is another problem. We need the electricity; do fish need hot water? We need electricity, but won't the thing likely blow up? And must it be on the lake, visually polluting the area? Engineers have sound and considered replies to each of these criticisms, and offer us free choices: do you want dirty air from fossil plants or warm water in Lake Michigan? Air or thermal, seen or sensed, which is worse? Or do you really prefer to freeze in the dark?

Clearly immobility and frustration are central factors in the cleanup of America. In 1970 we impatiently demanded action. In 1977 the air and water is still foul, and ecologists seek villains. Perspective: historically America has always moved slowly on great questions. We are a rich, conservative, nation and prefer to do things slowly and correctly, rather than at once and perhaps several times. The anti-technologists who would close mills, tear down nuclear plants, and plug all outfall pipes now must have patience. The technologists who sired this mess can get us out, but they need priorities and time. Priorities are slowly emerging from our ongoing national debates. The past decade has brought us to the edge of some remarkable energy-ecology discoveries. Business and government are slowly learning that support of technology is more profitable than fighting. Perhaps an American ecology zaibatsu will yet emerge.



X. HAS THE ENERGY CRISIS KILLED THE ENVIRONMENTAL MOVEMENT?

Certainly the two lines have crossed on the charts, and the answers are unclear. Which is better, a polluting but efficient, 1964 Chevrolet, or a gas eating 1974 Chevrolet that burns clean? Or a hybrid 1978 Chevrolet that may cost its owner a thousand dollars in its life to keep its catalytic converter effective?

Recently President Carter held a press conference in which he demanded, in this "moral equivalent of war", that we use less fuel and more domestic steel products. The ideal response seems to be a four ton Chevrolet that averages forty miles to the gallon. If we all buy little cars, what happens to U. S. Steel and Inland Steel? Can we have economic stability, clean air, and jobs?

The reports are slowly emerging on energy/ecology interaction. At first glance it seems that energy efficient processes will pollute less. How much will we pay or give up to achieve this? Clearly our economy must change at a rapid pace. Just as the automobile destroyed a horse based economy, so the next stage will destroy the present synthesis. We believe we can have a clean environment and still maintain our standard of living, but is this a statement of fact, faith in technology, or just whistling in the dark?

XI. WHAT CAN RECYCLING DO?

Recycling can work near miracles in our economy, if it's ever tried. Recycling today is a suburban lady delivering five pounds of washed aluminum cans to an out-of-the-way collection center in a two ton station wagon that burned a gallon of gas getting there, a symbolic, if not actually counterproductive act.

Business is simply not interested in recycling; its large investments in the production of raw materials precludes that. Since 1970 the production of aluminum beer cans (only 25% were recycled last year), throw-away bottles, and other litter has grown mightily. The Oregon and Vermont bottle and can laws have been stopped at the state borders by a coalition of business interests. Freight rates militate against scrap steel. We spend far more time looking for places to dump "trash" than ways to use it.



Recycling will succeed when it becomes profitable or required. It is an ecological area where we must choose, with difficulty, between the business ethic and the national ethic. Once made and uniformly applied, business and the nation will profit. If business can be induced to apply the same brilliantly executed managerial techniques to recycling that it does in providing raw materials, production and distribution, we could well experience a second American Revolution that could usher in a golden age.

## XII. CAN BUSINESS BE PERSUADED TO ADOPT THE NEW ETHIC?

### History Lesson Time Again

In the last century, Commodore Vanderbilt told people to like his railroad or go to hell: "it's my railroad, ain't it?" From that primitive level the development of the doctrine of public responsibility has been steady in the American business world. Drug quality labelling, product safety, and the entire range of our nation's production has been evolving since those halcyon days. Formerly we could make but one demand of a drug manufacturer, that he not poison us. Next we ordered him to place accurate labels on his products, then that the products do some good, and finally, that they do no inadvertent harm. The doctrine of public responsibility is a changing and evolving one.

New levels of public responsibility are emerging and embracing querulous executives. Today we ask if it is permissible for a company to leave a community that it created? What does it owe the community? Should we, like the Germans and Japanese, provide lifetime employment? Should labor be part of the decision making process, as in Sweden?

The environmental ethic is a new one. Business is not sure it can swallow it amid a plethora of regulations and rapid changes. It fears for its future on several fronts. Yet, historically, the doctrine has been present and evolving in America for over a century, and will continue to evolve. Can business be recycled and cleaned up enough to partake of what must become the dominant ethic of the next century? It, again judging by the historical record, cannot turn back or stop the clock. Business must adapt, adopt, or face a terminal alternative that no one today prefers.



